What is claimed is:

1. A fuel cell comprising:

a pair of separators sandwiching both faces of a membrane electrode assembly composed of a pair of electrodes provided on both sides of a solid polymer electrolyte membrane; and

an outer seal member sandwiched by a pair of separators at a position surrounding an outer periphery of the membrane electrode assembly;

an inner seal member sandwiched by one of the pair of separators and an outer periphery of said electrolyte membrane; and

wherein a step is formed at contact surfaces of said inner seal member and said outer seal member on at least one of said pair of separators.

2. A fuel cell according to claim 1, further comprising:

a backing member for [reinforcing] supporting said electrolyte member placed opposing to said inner seal member interposing said electrolyte membrane.

3. A fuel cell according to claim 2, wherein said backing member is said anode electrode or said cathode electrode.

4. A fuel cell according to claim 2, wherein said backing member is the other one of said pair of separators.

5. A fuel cell according to claim 1, wherein the height of said step is set to be the same as that of an total thickness of the electrolyte membrane and a larger electrode among a

pair of electrodes.

6. A fuel cell stack, which is formed by stacking a plurality of fuel cells according to claim 1.

7. A fuel cell stack, which is formed by stacking a plurality of fuel cells according to claim 2.

8. A fuel cell stack, which is formed by stacking a plurality of fuel cells according to claim 3.

9. A fuel cell stack, which is formed by stacking a plurality of fuel cells according to claim 4.

10. A fuel cell stack, which is formed by stacking a plurality of fuel cells according to claim 5.

11. A fuel cell comprising:

an electrode assembly sandwiched between a pair of separators composed of an electrolyte membrane sandwiched between an anode electrode and a cathode electrode; and,

an outer seal member sandwiched between a pair of separators at a position surrounding the outer periphery of the electrode assembly, an inner seal member sandwiched between one of the separators and the outer periphery of the electrolyte membrane, and a backing member in opposition to the inner seal member and

interposing the electrolyte membrane;

wherein, there is a step between the contact surface with the backing member and the contact surface with the outer seal member on the other separators in opposition to one of the separator.

12. A fuel cell according to claim 11, wherein there is a step of the same direction as the step of the other separator on the contact surfaces with both seal members on one of separators.

13. A fuel cell according to claim 11, further comprising:

a backing member for supporting said electrolyte member placed opposing to said inner seal member interposing said electrolyte membrane.

14. A fuel cell according to claims 11, wherein the backing member is the anode electrode or the cathode electrode.

15. A fuel cell according to claims 11, wherein the inner seal member and the outer seal member constitute an integral member.

16. A fuel cell according to claims 11, wherein the outer seal member and the inner seal member are separate members.

17. A fuel cell according to claim 16, wherein the outer seal member and the inner seal member are provided on different separators.

18. A fuel cell stack, which is formed by stacking a plurality of the fuel cells according to claim 11.

19. A fuel cell stack, which is formed by stacking a plurality of the fuel cells according to claim 12.

20. A fuel cell stack, which is formed by stacking a plurality of the fuel cells according to claim 13.

21. A fuel cell stack, which is formed by stacking a plurality of the fuel cells according to claim 14.

22. A fuel cell stack, which is formed by stacking a plurality of the fuel cells according to claim 15.

23. A fuel cell stack, which is formed by stacking a plurality of the fuel cells according to claim 16.

24. A fuel cell stack, which is formed by stacking a plurality of the fuel cells according to claim 17.